of M^3 is barely indicated in *Barbastella*, *Euderma*, *Idionycteris*, Recent *Corynorhinus*, and in the Pleistocene *C. alleganiensis*, but there is no trace of it in Eurasian *Plecotus*, which shows some reduction even of the third commissure of M^3.

Shallowness of the brain case is a feature observed in *Plecotus*, *Euderma*, *Idionycteris*, and possibly in *C. alleganiensis* (uncertain because of the likelihood that the only known almost complete skull has suffered dorsoventral compression). This degree of shallowness (cranial depth equals 34 per cent of greatest length) is equaled in Recent *Corynorhinus* only by extreme variants.

Failure of the temporal ridges to merge completely to form a sagittal crest is a character chared with *C. alleganiensis*, *Idionycteris*, and *Euderma*. However, in these forms the ridges remain farther apart. Occasional specimens of Recent *Corynorhinus* resemble *C. tetralophodon* in this respect.

Specimen examined.—One, the type.

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MYCOLOGY.—*A southern* Basidiobolus *forming many sporangia from globose and from elongated adhesive conidia.* Charles Drechsler, Plant Industry Station, Beltsville, Md.

During more than 30 years the Petri plate cultures that I prepared for the isolation of parasitic fungi from decaying roots and stems of various cultivated plants collected in the District of Columbia and in neighboring localities within Maryland and Virginia have now and then shown some limited development of smooth-walled zygospores which from their paired juxtaposed protuberances were recognizable as pertaining to a species of *Basidiobolus*. Since the zygospores, often badly contaminated with bacteria and miscellaneous molds, never germinated after their transfer to a fresh agar medium, and never were found accompanied by conidia, my efforts to obtain the adventitious phycomycete in pure culture long remained unsuccessful. In recent years, however, unquestionably the same fungus has been isolated many times from numerous mycelia found developing in maize-meal agar plate cultures canopied with leaf mold taken from deciduous woods near Beltsville, Maryland, and Arlington, Virginia. These cultures yielded, besides, an even larger number of separate isolations referable to a second species of *Basidiobolus* differing from the first in the strongly musty odor it emitted (Drechsler, 1953), in its much earlier production of globose conidia, in its readier conversion of globose as well as of elongated adhesive conidia into sporangia, and in the strongly undulating outer contour of the frequently two-layered wall surrounding its mature zygospore. Because of similarity to *B. ranarum* Eidam (1886), especially in the character of its zygospore wall, the widely distributed second species—I have obtained it also from decaying plant detritus collected in New Hampshire, Pennsylvania, Delaware, North Carolina, and Louisiana—awaits comparison with congeneric isolations from the excrement or stomach contents of frogs and other amphibians.

The varied asexual reproduction displayed under ordinary cultural conditions by the species with zygospores of undulate profile takes place rather more abundantly in still another species of *Basidiobolus* that came to light in several Petri plate cultures that had been canopied with small quantities of decaying plant detritus gathered in northeastern Florida, on January 1, 1954. When

growing on maize-meal agar this third species does not give off the musty odor emitted by many species of *Streptomyces*. As its zygospores are typically smooth it would seem clearly distinct from *B. ranarum*. For the same reason it would appear separate also from *B. myxophilus* R. E. Fries (1899) the zygospores of which were described as being provided with "episporio undulato"; and this separateness would hold true whether the doubts expressed by Levisohn (1927), and later by Fries (1929) himself, concerning the independence of *B. myxophilus* were justified or not. Its smooth zygospores presumably distinguishes the Florida phycomycete likewise from *B. intestinalis* (Léger and Hesse), for the statement by Léger (1927) that the "oeuf sphérique" of the fungus inhabiting the trout intestine becomes surrounded by a wall composed of "écailles concentriques" must almost certainly imply the presence of numerous convex contour markings similar to the wavy peripheral markings shown in Eidam's (1886, pl. 12, fig. 7–9, 12–14) and Thaxter's (1888, pl. XXI, fig. 413) illustrations of the mature undulate zygospores of *B. ranarum*. Although Levisohn found the *Basidiobolus* developing from the excrement of lizards to agree with the single species infesting the digestive tracts of frogs, toads, salamanders, and blindworms, and therefore held *B. lacertae* Eidam to be identical with *B. ranarum*, it yet seems expedient to note here that very short and consistently unseptate protuberances such as Eidam set forth as being characteristic of conjugating segments in *B. lacertae* are not usually observable in the Florida fungus. In view of the readiness with which its conidia are converted into sporangia this fungus may appropriately be described under an epithet compounded of two words μεριστος, σπορα meaning "divided" and "seed," respectively.

Basidiobolus meristosporus, sp. nov. Mycelium mediocriter conspicuum, saepe in aerem visibiliter crescens, incoloratum; hyphis sterilibus ramosis, plerumque 3–20μ crassis, mox septatis, hic illic disjunctis, cellulis eorum plerumque 30–230μ longis, uno nucleo visibili praeditis. Primiformibus fertilibus hyphis singulatim ex cellulis mycelii vel ex conidiis vel ex zygosporis surgentibus, incoloratis, simplicibus, basi 4–9μ latis, in aerem vulgo 60–200μ ad lucem protendentibus, sursum in tumorem jaculatorium 35–60μ longum et 15–30μ latum inflatis, apice unum primiforme conidium ferentibus, denique hoc violenter abjicientibus; primiformibus conidiis globosis sed basi ad instar mammiculae leviter prominulis, plerumque 20–45μ in diametro, nunc uno nucleo nunc duobus nucleis praeditis, interdum in sporangium transeuntibus denique 5–90 sporas intus gignantibus. Hyphis formae gracilis fertilibus ex primiformibus vel tenacibus conidiis nec umquam ex cellulis mycelii surgentibus, incoloratis, rectis, saepius 75–200μ longis, basi 1.5–3.5μ latis, sursum leniter attenuatis, apice 1–2μ latis, ibi unum conidium tenax ferentibus. Tenacibus conidiis omnino 20–70μ longis, 6–20μ latis, ex infera viventi cellula et supero glutinoso rostro constantibus; glutinoso rostro flavido, tubulato, 3–10.5μ longo, sursum 1–2.7μ lato, apice vulgo guttula materiae glutinosae flavae 3–10μ crassa vestito; viventi cellula incolorata, elongato-ellipsoidea, recta vel leviter curvata, pleurumque 17–55μ longa, uno nucleo vel duobus nucleis instructa, interdum in sporangium transeunte denique 1–50 sporas intus gignantibus. Sporis incoloratis, globosis vel elongato-ellipsoideis vel rotundo angulatis, plerumque 7–15μ longis, 6–12μ latis, uno nucleo praeditis. Zygosporis ex conjugio duabus cellularum contiguarum in hyphis mycelii etiam in conidiis ortis, globosis vel elongato-ellipsoideis, plerumque 23–35μ longis, 20–32μ latis, in maturitate uno nucleo instructis, muro levi saepe aliquid flavido 2–3μ crasso circumdatis.

Habitat in materiis plantarum putrescentibus prope Palatka, Florida.

Mycelium usually readily visible, growing noticeably into the air, colorless; assimilative hyphae branched, mostly 3 to 20μ wide, early becoming divided by cross-walls; hyphal segments mostly 30 to 230μ long, in many instances soon becoming separated from their neighbors, in the living state showing a single nucleus. Primary conidiophores arising singly from hyphal segments or from conidia or from germinating zygospores, colorless, unbranched, proximally 4 to 9μ wide, commonly extending to 60 to 200μ into the air and toward the main source of light, inflated distally into a propulsive swelling 35 to 60μ long and 15 to 30μ wide, bearing at the tip a single primary conidium and forcibly shooting it off; primary conidia globose, but with a wide mammiform protrusion at the base, mostly 20 to 45μ in diameter, colorless, containing 1 or

2 discernible nuclei, rather often functioning as sporangia in forming 5 to 90 spores internally. Conidiophores of slender type arising singly either from primary or from adhesive conidia but never originating from hyphal segments, colorless, straight, mostly 75 to 200μ long, 1.5 to 3.5μ wide at the base, tapering gradually upward, 1 to 2μ wide near the tip on which a single adhesive conidium is borne in axial alignment. Adhesive conidia mostly 20 to 70μ in total length and 6 to 20μ in greatest width, composed of a living cell and an apical adhesive beak; the adhesive beak yellowish, tubular, 3 to 10.5μ long, 1 to 2.7μ wide above its broad attachment, at the tip commonly surrounded by a globose mass of golden yellow glutinous material 3 to 10μ in diameter; living cell colorless, elongated-ellipsoidal, straight or slightly curved, mostly 17 to 55μ long, containing 1 or 2 clearly visible nuclei, often functioning as sporangia in forming 1 to 50 spores internally. Spores colorless, globose or elongate-ellipsoidal or somewhat angular, mostly 7 to 15μ long and 6 to 12μ wide. Zygospores originating from union of 2 contiguous cells in mycelial hyphae or in conidia, mostly globose or elongate-ellipsoidal, often 23 to 35μ long and 20 to 32μ wide, in mature resting state apparently containing a single nucleus and surrounded by a smooth, slightly yellowish wall 2 to 3μ thick.

Occurring in decaying plant materials near Palatka, Florida.

In the readily visible character of its mycelium and in its tendency toward aerial development *Basidiobolus meristosporus* differs markedly from the two congeneric forms ubiquitous on leaf mold near the District of Columbia, both of which are often virtually indiscernible on maize-meal agar, and are little given to production of aerial hyphae on this substratum despite their robust submerged growth. Yet under the microscope a young mycelium of *B. meristosporus* looks much like young mycelia of the two congeneric species with respect to branching habit, cellular dimensions, and protoplasmic texture. Where vegetative growth takes place in an ample expanse of unoccupied agar substratum the terminal segments (Fig. 1, A) at the advancing forefront are commonly 8 to 10μ wide. Fluctuations between 9 and 13μ are usual in the penultimate and antepenultimate segments, and prevail rather generally also among the older segments to the rear. However, the short proximal segments near the empty envelope of the conidium from which a sizable mycelium has originated often measure 15 to 20μ in width. In tube cultures 10 to 15 days old elongated ellipsoidal segments 50 to 125μ long and 25 to 30μ wide can sometimes be found in large numbers 4 or 5 millimeters below the surface, but as these massive cells are often wholly disconnected or have only meager contact with any neighbor they give somewhat the appearance of resting bodies. Filaments conspicuously narrower than the axial hyphae at the margin of an expanding mycelium may originate as lateral branches given off by axial segments in positions well back from the advancing forefront, or as germ hyphae extended from conidia that have happened to fall on substratum already occupied by mycelium. Many such filaments measuring only 3 or 4μ in width are commonly present in cultures several weeks old. The individual hyphal segment, irrespective of width, contains a single nucleus which with the relatively large endosome is, as a rule, clearly visible in an unstained living condition.

Many hyphal segments in an actively growing mycelium of *Basidiobolus meristosporus* expend their protoplasmic contents in asexual or in sexual reproduction within a few hours after their formation. In initiating asexual reproduction the individual segment puts forth a stout branch (Fig. 1, B, a; C, a) usually from a median position. If the segment is on the surface of the substratum this branch sometimes ascends at once into the air, directing its growth toward the main source of light. After ascending about 100μ (Fig. 1, D, a), or sometimes no more than 25μ (Fig. 1, E, a), the branch, or conidiophore, may widen out terminally to form the propulsive enlargement (Fig. 1 D, b; E, b) characteristic of the genus. When the enlargement has received much of the protoplasm originally contained in the underlying segment it gives rise at its tip to a single globose conidium (Fig. 1, E, c). Rather commonly the branch extended from the hyphal segment is considerably longer than 25 or 100μ, for in the many instances where it originates under the substratum it must first make its way to the surface before it can grow into the air. Besides, on reaching the surface the conidiophorous branch in *B. meristosporus* often elongates procumbently before its tip ascends to form the propulsive enlargement and the conidium (Fig. 1, F, a). A growing branch several hundred microns in length contains in its forward portion all the protoplasm of the whole reproductive unit. Successive stages in the forward movement of the granular material and single nucleus may be

marked by deposition of retaining septa in the rear. When finally all the protoplasm has been received into the terminal conidium the empty wall of the hyphal segment and an extensive proximal portion of the empty membrane of the conidiophorous branch may have collapsed badly or have otherwise become unrecognizable.

If a conidiophore bearing a globose conidium nearly ready for discharge (Fig. 1, F, a) is mounted in a moist preparation under a cover glass normal discharge does not take place, but the terminal enlargement slowly undergoes some changes that presumably are similar to those occurring when it serves as a propulsive mechanism. An irregular fissure appears in the lower portion of the enlargement (Fig. 1, F, b), where in normal discharge the membranous envelope is torn apart. Through contraction of the membrane in a zone a little above the equator of the enlargement the main portion of membrane normally shot off with the conidium acquires the curious tower-and-cupola outline first made known in Eidam's account of *Basidiobolus ranarum*. The proximal portion of membrane represented in the tower-like profile sometimes is markedly thinner than the distal portion making up the cupola-like component (Fig. 1, F, b) and may then be expected to vanish from sight relatively early. Although in many instances the empty membranous piece remains attached to the conidium (Fig. 1, G) it more often becomes disengaged in flight and reaches the substratum separately. If its lower portion has evanesced it presents a conical shape (Fig. 1, H, a–e) rather than the more familiar tower-and-cupola conformation (Fig. 1, H, f–m).

The globose conidia found scattered abundantly on maize-meal agar cultures 3 or 4 days old are mostly about 30μ in diameter, and in unstained living material usually show, even if somewhat indistinctly, a single nucleus near the center (Fig. 1, I, a–d; Fig. 2, A–C), yet here and there an individual conidium (Fig. 2, D) may reveal 2 nuclei. On fresh unoccupied agar globose conidia commonly germinate by extending individually a broad germ hypha (Fig. 1, J, a, b) from which a new mycelium may originate. A relatively narrow germ hypha (Fig. 1, K), as has been mentioned, may be put forth from a globose conidium that has fallen on a tract of agar substratum already permeated with mycelium of the fungus. Often a globose conidium gives rise to a germ conidiophore (Fig. 1, L, a; M, a) that ascends into the air and forms a propulsive enlargement (Fig. 1, L, b; M, b) on which another globose conidium (Fig. 1, L, c; M, c) is produced. After the new conidium has been shot off similar repetitional development may ensue again and again, each successive generation being accompanied by noticeable reduction in size.

Many of the globose conidia formed in maize-meal agar cultures of *Basidiobolus meristosporus* become converted into sporangia (Fig. 2, E–H) through three-dimensional segmentation of their contents. In slanted tube cultures, where conidia

FIG. 1.—*Basidiobolus meristosporus* as found developing in maize-meal agar; × 500 throughout. A, Terminal portion of hypha at margin of an actively growing mycelium. B, C, Submerged hyphal segments from each of which a conidiophorous branch, a, is being extended upward. D, Portion of hypha at surface of culture showing an intercalary segment from which has been extended a short conidiophore, a, with a terminal propulsive swelling, b. E, Unusually wide hyphal segment at surface of culture that has become emptied in forming a unit of asexual reproductive apparatus: a, unusually short empty conidiophore; b, propulsive swelling, c, globose conidium ready to be shot off. F, Globose conidium on propulsive enlargement terminating a long condiophore sent up from a submerged hyphal segment: a, condition when newly mounted in a moist preparation under a cover glass; b, condition 20 minutes later. G, Discharged conidium with attached piece of envelope of propulsive swelling. H, Pieces of envelopes of propulsive swellings left detached on substratum: a–e, short conical pieces; f–m, longer pieces of tower-and-cupola design. I, Detached globose conidia, a–d. J, Two conidia, a–b, germinating on fresh unoccupied maize-meal agar. K, Conidium germinating on surface of agar already occupied by mycelium of fungus. L, M, Globose conidia that are giving rise to other globose conidia: a, germ conidiophore; b, propulsive terminal swelling; c, young secondary conidium. N, Detached globose conidium that in part has undergone conversion into a sporangium: a, condition observed in a moist, newly prepared mount; b, condition observed 30 minutes later, showing production of a germ hypha from the large residual cell not included in the sporangium. O–Q, Empty membranous envelopes of globose conidia from each of which has been sent up an erect slender conidiophore, a, that bears aloft an elongated adhesive conidium, b. R, Detached adhesive conidia, a–d. S, Adhesive conidium germinating on fresh unoccupied agar. T, Empty envelope of an adhesive conidium from which has been sent up an erect slender conidiophore bearing aloft a secondary adhesive conidium. U, Detached adhesive conidia, a–c, each of which has been converted into a sporangium. V, Detached adhesive conidium in part converted into a sporangium: a, condition observed in a moist, newly prepared mount; b, condition 20 minutes later, showing production of a broad germ hypha from the residual cell not included in the sporangium. W, Adhesive sporangium that has released from its basal opening all except one of its spores. X, Spores after liberation from sporangium: a–l, individual spores; m–o, spores united in pairs; p, spores united in a group of three. Y, Unit of sexual reproductive apparatus at early stage of conjugation. Z, Mature zygospores, a–c.

are often propelled onto the glass ceiling in such large numbers that they make up a coating readily visible to the naked eye, a greater proportion of conidia are converted into sporangia on the ceiling than on the agar floor. Sporangial development thus takes place under ordinary conditions of culture and in a wholly spontaneous manner. As a rule the sporangial envelope remains intact for some time after the delimited spores have begun rounding up, but eventually it ruptures irregularly. The size of the parent conidium largely determines the number of spores that are produced but does not greatly affect their size. Globose conidia of unusually large dimensions (Fig. 2, H) may yield from 60 to 90 spores, those of average size commonly yield about 25 spores, and those of unusually small size may form only about 5 spores. Some conidia (Fig. 1, N, a) are converted into sporangia only in part, the residual portion in such instances

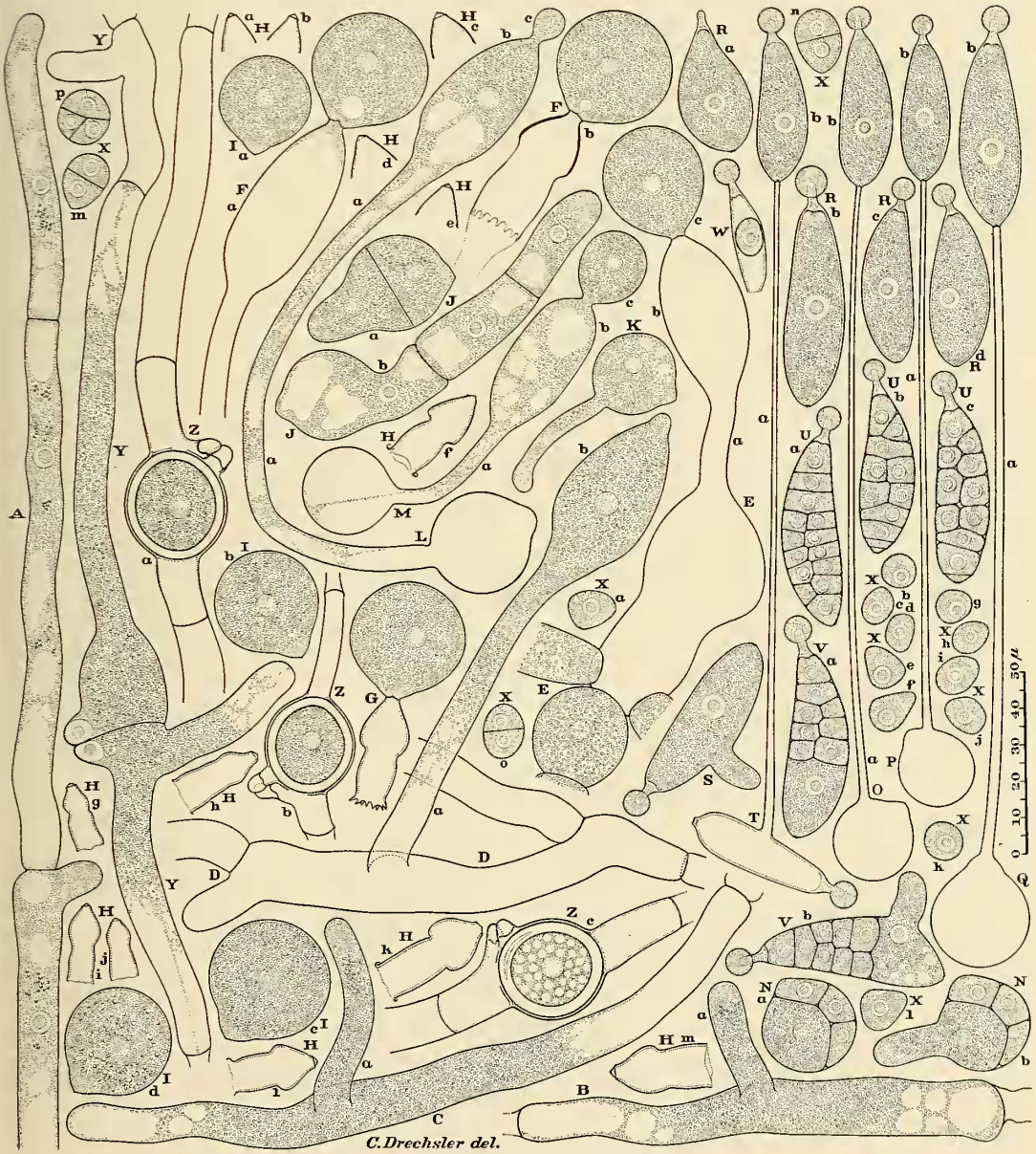

FIG. 1.—(See opposite page for legend).

retaining its coarsely granular texture as well as its capacity to germinate promptly by emission of a broad germ tube (Fig. 1, N, b).

In maize-meal agar cultures of *Basidiobolus meristosporus* numerous globose conidia (Fig. 1, O–Q) give rise individually to a tall slender conidiophore (Fig. 1, O–Q: a) bearing a solitary elongated conidium (Fig. 1, O–Q: b). This conidium is of the unusually distinctive secondary type described earlier (Drechsler, 1947) in another member of the genus. It is prolonged distally into a yellowish beak that normally terminates in a globular mass of golden yellow adhesive substance, though sometimes under the dry conditions prevailing on the glass ceiling of a slanted tube culture no adhesive globule is secreted (Fig. 1, R, a). The elongated conidia are not forcibly shot off but become detached (Fig. 1, R, b–d; Fig. 2, I–M) on slight disturbance. In a living unstained condition they show one (Fig. 1, R, a–d; Fig. 2, I–L) or two (Fig. 2, M) nuclei. Like the primary conidia they often put forth a broad germ tube (Fig. 1, S) capable of growing either into an extensive assimilative mycelium or into a phototropic conidiophore that eventually shoots off a globose conidum. In aging cultures, and more especially in the presence of alien molds, they are much given to repetitional development, each sending up a slender conidiophore (Fig. 1, T, a) on which a new adhesive conidium is borne. They readily become converted into sporangia (Fig. 1, U, a–c; Fig. 2, N–R) through segmentation of their contents. Like sporangia generally they produce spores in numbers approximately proportional to their size. In the few instances where an adhesive conidium is only partially converted into a sporangium (Fig. 1, V, a) the unconverted residual portion retains its capacity for promptly putting forth a broad germ hypha (Fig. 1, V, b). Many adhesive sporangia in the later stage of their development show one or two transverse markings (Fig. 1, U, b, c; Fig. 2, O) in the portion of envelope surrounding the basal spore. These markings apparently indicate definite modifications for dehiscense, since elongated sporangial envelopes are often found that are wide open at the basal end (Fig. 1, W) and are either wholly empty or occupied by only 1 or 2 spores.

The spores (Fig. 1, X, a–p; Fig. 2, S, a–e) formed in the two types of sporangia appear indistinguishable. In unstained living condition they show clearly a single nucleus surrounded by very finely granular protoplasm wholly devoid of vacuoles. The individuals that have rounded up into a nearly spherical shape commonly measure about 10μ in diameter. Owing to imperfect separation within some sporangia 2 spores (Fig. 1, X, m–o) or even 3 spores (Fig. 1, X, p; Fig. 2, S, e) are occasionally found united after they have been released.

Sexual reproduction takes place early and abundantly in maize-meal agar cultures of *Basidiobolus meristosporus*. As in other members of the genus conjugation is initiated by the production of 2 juxtaposed protuberances from the adjoining ends of paired neighboring cells (Fig. 1, Y). The mature resting zygospore is surrounded by a thick smooth wall that usually appears intimately united with the thin enveloping membrane of the parent gametangium (Fig. 1, Z, a–c; Fig. 2, T, U). However, in small areas of some cultures many zygospores were found rather loosely surrounded by the wall of the parent gametangium, so that the gametangium envelope was partially (Fig. 2, V) or wholly (Fig. 2, W) separated from the zygospore wall proper and presented an irregularly wavy profile. In these reproductive units the separation observed did not correspond accurately to that usual in reproductive units of the musty-smelling congeneric form abundant in our middle latitudes, for in the latter, as also in sexual apparatus of *Conidiobolus osmodes* Drechsler (1954), extensive separation is found between the 2 layers making up the zygospore wall proper. Localized separation between an outer and an inner layer of the zygospore wall proper is sometimes noticeable in reproductive units of *B. meristosporus*, especially at the proximal or the distal end (Fig. 1, Z, c; Fig. 2, V), but the smoothness of the outer contour is never affected thereby.

FIG. 2.—*Basidiobolus meristosporus* as found developing in maize-meal agar cultures; × 1000 throughout. A–C, Uninucleated globose conidia. D, Binucleated globose conidium. E–H, Sporangia formed from globose conidia. I–L, Uninucleated adhesive conidia. M, Binucleated adhesive conidum. N–R, Sporangia formed from adhesive conidia. S, Spores after release from sporangia: a–d, individual spores; e, group of 3 united spores. T–W, Mature zygospores with adjacent portions of hyphal membranes. X, Adhesive conidium divided into 2 cells preliminary to sexual development. Y, Adhesive conidium that has formed a zygospore in which 2 nuclei are visible. Z, Adhesive conidium that has formed a zygospore showing a single nucleus.

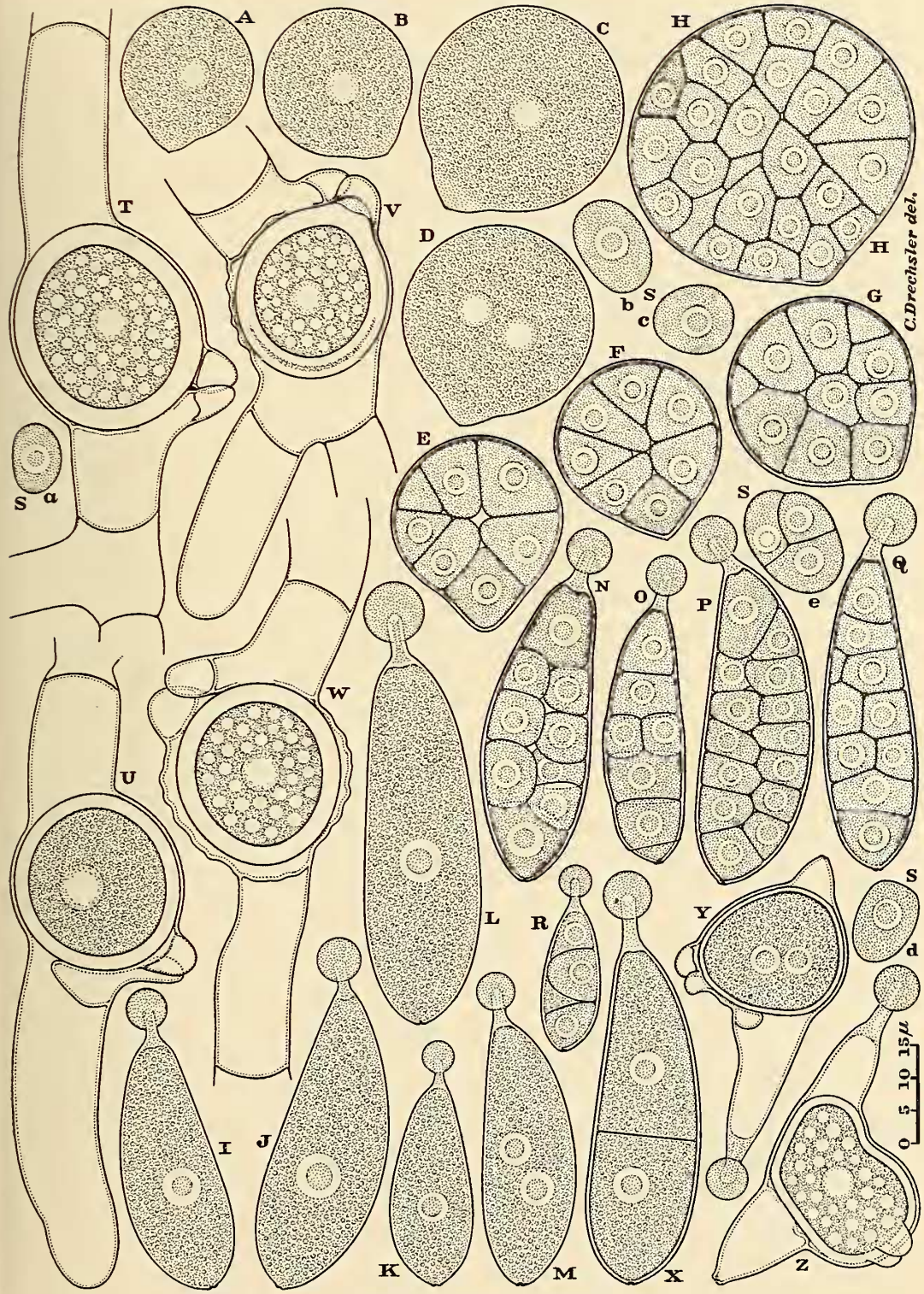

FIG. 2.—(See opposite page for legend).

Zygospores are produced rather often in maize-meal agar tube cultures of *Basidiobolus meristosporus* through conjugation of segments resulting from median division of a globose or of an elongated conidium (Fig. 2, X). In instances where an elongated conidium serves as parent, reproductive units of bizarre design (Fig. 2, Y, Z) are brought into being. Except for their greater irregularity in outward shape and their somewhat smaller size the zygospores of conidial origin appear similar to those of mycelial origin, sometimes being filled with coarsely granular protoplasm (Fig. 1, Z, a, b; Fig. 2, U, Y) and at other times containing granular protoplasm interspersed with many small reserve globules (Fig. 1, Z, c: Fig. 2, T, V, W, Z). A mature zygospore in its resting state appears to contain only a single nucleus, so that the presence of two nuclei (Fig. 2, Y) indicates either an early immature state or a late after-ripened state prior to germination.

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ZOOLOGY.—*The genus* Ogyrides *(Crustacea: Caridea) in North Carolina.*

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In 1879 J. S. Kingsley described a small caridean shrimp, *Ogyris alphaerostris*, from the eastern shore of Northampton County, Va. He based his description on a single specimen that was in poor condition. Hay and Shore (1918) redescribed the species on the basis of another specimen, which was collected near Beaufort, N. C. They placed this aberrant genus in a family of its own, setting aside previous assignments to the families Hippolytidae and Alphaeidae apparently unaware of a change in the generic nomenclature. The genus *Ogyris* was proposed by Stimpson (1860) on the basis of an oriental species, but Stebbing (1914) found this name to be preoccupied and proposed the name *Ogyrides* to supplant it. The family status of the group remains undecided.

Two species of *Ogyrides* have been found in North Carolina in the past three years. One of these is apparently *O. alphaerostris* (Kingsley). The second is different from any known species of *Ogyrides* and is described herein as a new species. Unfortunately, the status of the new species depends upon a clear definition of Kingsley's species, and circumstances make such a definition difficult.[1]

Neither Kingsley's description nor the accompanying figure exactly agrees with either of the species considered here. Kingsley did not mention any spines on the dorsal surface of the carapace, whereas both of the species treated here possess such spines. His figure shows the blade of the antennal scale extended as a small distal lobe instead of tapering toward the terminal spine as in both of the North Carolina species. This figure does not exactly fit the short description, and moreover, the type (an ovigerous female formerly housed at Union College, Schenectady, N. Y., and now at the U. S. National Museum) almost

[1] For many suggestions and for the historical information I am indebted to Dr. Fenner A. Chace, Jr., and Dr. L. B. Holthuis. W. A. Van Engel gave information on the type locality of *O. alphaerostris*.